

NASA Langley Atmospheric Science Data Center EOSDIS Evolution Status

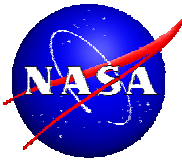
AURA DSWG Meeting September 13, 2006

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ASDC's Role in EOSDIS Evolution

NASA HQ Science Mission Directorate approved plan for ASDC Evolution in Fall, 2005

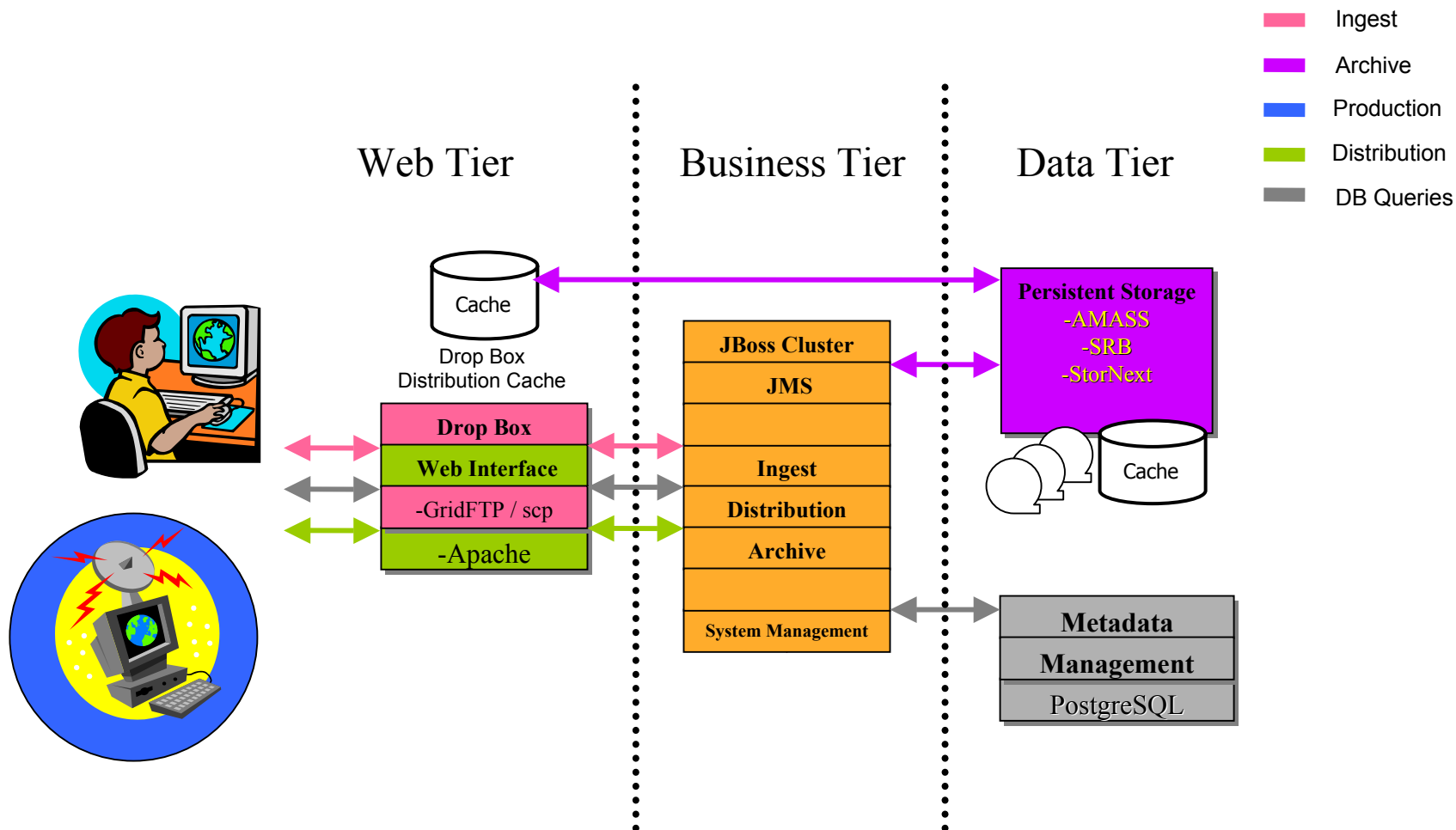
- **Develop an advanced ingest, archive, and distribution system**
Archive - Next Generation (ANGē) to meet broader science community needs
- **Consolidate LATIS (CERES) and ECS (MISR, MOPITT, TES) functionality into ANGē**
- **Increase automation of MISR and CERES processing**
- **Reduce operations costs by 25-35% in FY08 timeframe**

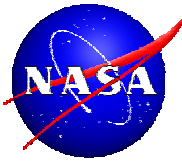


Basic Approach

- Minimize the number of archive systems we need to manage
 - Move from two to one
 - Reduce duplication of operations
- Leverage Commodity Hardware
 - x86 based system
 - Fiber Channel attached SATA drives
- Build upon Open Source Software
 - Linux
 - JBoss
 - Apache
- Improve efficiency in our production environment through more automation of CERES and MISR systems

ANGē Software Architecture/Data Flow





Current Status

- Finished the ANGe Version 1 Design
 - Code for Version 1 will be completed on 9/29
 - End-to-End system that will allow performance testing
 - Minimal Operation Interfaces will be available for administrative and control functions
- Preparing for AMASS to StorNext Storage Manager migration
 - On-Site Training was conducted recently
 - Working on configuring the file system layout for the archive system

Immediate Plans

- Initial ANGe performance testing will be conducted in October and November.
 - Determine the number of CPU's required to handle the target Ingest, Archive, and Distribution metrics
- Adopted a Total Systems Approach
 - LATIS operations will continue into 2007
- Add operational features to ANGe Version 2
 - Operational Interfaces for administrative and control functions
 - Functional performance tuning

Long Term Plans

- Robust ANGe Version 2 ready next summer
 - Software developed
 - Hardware environment in place
 - Network ready to implement
- ECS Roll-Off by December 2007

Summary

- We've made significant/expected progress
- We'll report our performance metrics to EOSDIS in December 2006
- ASDC will coordinate testing schedules with the individual data providers in early 2007
- We anticipate a successful Roll-Off by the end of next year (December 2007)